

CLAIMS

1. Polyolefin compositions comprising (percent by weight):
 - 1) 55-80% of a crystalline propylene homopolymer or copolymer containing up to 15% of ethylene and/or C₄-C₁₀ α -olefin(s) and having an MFR value (230 °C, 2.16 kg) of at least 15 g/10 min; and
 - 2) 20-45% of a copolymer of ethylene with one or more C₄-C₁₀ α -olefin(s) containing from 10 to 40% of said C₄-C₁₀ α -olefin(s);said compositions having values of MFR (230 °C, 2.16 kg) equal to or higher than 15 g/10 min, a total content of ethylene of 20% or more, a total content of C₄-C₁₀ α -olefin(s) of 4.5% or more, a ratio of the total content of ethylene to the total content of C₄-C₁₀ α -olefin(s) of 2.3 or more, and an intrinsic viscosity value of the fraction soluble in xylene at room temperature of 1.7 dl/g or less.
2. The polyolefin compositions according to claim 1 comprising (percent by weight):
 - 1) 55-75%, preferably 55-70%, of a crystalline propylene homopolymer or copolymer containing up to 15% of ethylene and/or C₄-C₁₀ α -olefin(s) and having an MFR value of from 15 to 80 g/10 min; and
 - 2) 25-45%, preferably 30-45%, of a copolymer of ethylene with one or more C₄-C₁₀ α -olefin(s) containing from 20 to 40% of said C₄-C₁₀ α -olefin(s);said compositions having values of MFR (230 °C, 2.16 kg) equal to or higher than 15 g/10 min, a total content of ethylene of 20% or more, a total content of C₄-C₁₀ α -olefin(s) of 6% or more, a ratio of the total content of ethylene to the total content of C₄-C₁₀ α -olefin(s) of 2.3 or more, a total fraction soluble in xylene at room temperature of 18 wt% or higher, and an intrinsic viscosity value of the fraction soluble in xylene at room temperature of 1.7 dl/g or less.
3. The polyolefin compositions of claim 1, having MFR values equal to or higher than 30 g/10 min.
4. The polyolefin compositions of claim 1, wherein the intrinsic viscosity of the fraction soluble in xylene at room temperature is in the range from 0.8 to 1.5 dl/g.
5. The polyolefin compositions of claim 1, wherein the content of polymer soluble in xylene at room temperature is higher than 20%.
6. The polyolefin compositions of claim 1, having a ductile/brittle transition temperature equal to or lower than -35 °C.

7. A process for producing the polyolefin compositions of claim 1, carried out in at least two sequential steps, wherein in at least one polymerization step the relevant monomer(s) are polymerized to form component 1) and in the other step the relevant monomers are polymerized to form component 2), operating in each step, except the first step, in the presence of the polymer formed and the catalyst used in the preceding step.
8. The process of claim 6, wherein the polymerization catalyst is a stereospecific Ziegler-Natta catalyst comprising, as catalyst-forming components, a solid component comprising a titanium compound having at least one titanium-halogen bond and an electron-donor compound, both supported on a magnesium halide in active form, and an organoaluminum compound.
9. The process of claim 6, wherein both components 1) and 2) are prepared in gas phase.
10. Injection moulded articles comprising the polyolefin compositions of claim 1.